

MAY
1956

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AMATEUR RADIO

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WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcast.

VK3WI: Sundays, 1130 hours EST, 7146 Kc. and 2000 hours EST 89 and 144 Mc. No frequency checks available from VK3WI. Intrastate working frequency, 7125 Kc.

VK3WI: Sundays, 1130 hours EST, simultaneously on 3573 and 7146 Kc., 81.010 and 144.5 Mc. Intrastate working frequency 7135 Kc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI: Sundays, 0900 hours EST, simultaneously on 3698 and 14543 Kc. 3500 Kc. channel is used from 0915 hours to 1015 hours each Sunday for the W.I.A. Country hook-up. No frequency checks available.

VK3WI: Sundays, 1000 hours EAST, on 7146 Kc. Frequency checks are given by VK3MD and VK3WI by arrangements on all bands to 50 Mc.

VK4WI: Sundays, 0930 hours EAST, on 7146 Kc. No frequency checks available.

VK1WI: Sundays, at 1000 hours EST, on 7146 Kc. and 144.5 Mc. No frequency checks are available.

VK3WI: Sundays, 1000 hours EST, simultaneously on 3.5, 7, 14 and 144 Mc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

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EDITORIAL



THE PLEBISCITE

The holding a plebiscite dates back to the days of ancient Rome when it was used to obtain a direct vote of all electors of the State on important public questions. Although many centuries have passed since the first plebiscite of the people, the principle is still carried on today—witness the use of the Referendum—which is the modern plebiscite. In a nutshell, it is the proper democratic way of obtaining the views of the electors on matters of import.

So it is in any well organised society that questions of a contentious nature are settled by a vote of all members. This is right in principle, but it is only truly representative if all the members vote and not just some. In other spheres, the result of a ballot is decided by a minority of the members at times leading to unpopular decisions being made which do not please the average member. This state of affairs can be laid at the doors of the members themselves who develop an indolent and "couldn't-care-less" outlook. The officers of the society may justifiably reply "Well it

is of your own doing." We prefer to think of it as "of your own NOT doing."

While this Institute practises the principles enunciated above at almost any Divisional meeting, it is rather unusual, if not unique, to call for a vote of ALL Amateurs on a Federal plane. To our knowledge, it has not been attempted before, probably due to difficulties of distance and other factors. You will correctly assume that such a plebiscite of Amateurs must be one of some importance. We consider it to be so, but the subject must, for the present, still remain a mystery.

Speculation whets the appetite and this is the intention here as well as to indelibly impress on your mind the importance of YOUR vote when it is called for. When you obtain the form, fill it in conscientiously and correctly and send it where directed. Remember, your vote is important even if of a negative nature. PRO BONUM PUBLICUM.

FEDERAL EXECUTIVE.

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Testing and Adjusting The "2YY" Transmitter

(VK2YY is the call sign of the Radio Section of the Leichhardt Petersham Technical College)

BY N. S. BEARD,* VK2ALJ

The 240v. a.c. switching sequence is as follows and is simple enough:—

The first switch places a.c. on the primary of the p.a. filament transformer, giving 6.3 volts for the transmitter heaters, and 5 volts for the p.a. h.t. rectifier. When these are on, the second switch closes the primary a.c. to the p.a. h.t. transformer, but this is interrupted by the S/R switch, so that although this switch must be closed before the modulator can be switched on, there is no h.t. on the p.a. or the signal shifter, until the S/R switch (or the S/R relay) is closed. The relay in the 6V6 driver supply closes the h.t. to the triode driver in the modulator, so that although the modulators are drawing current continuously when using phone, there is no speech input to the grids of the modulators, unless there is a d.c. input to the 6V6 driver in the transmitter.

The third ("Mod.") switch closes the a.c. to the modulator h.t. supply. When this switch is closed, the speech amplifier and modulator heaters are connected, and as the bias rectifier is connected across the 6.3v. speech amplifier heater line, the bias rectifier has a slight time delay before it commences to give a bias voltage. When the "Mod." switch is closed, and the meter selector switch is placed on "I. Mod.," the meter reads first about 150 Ma. or higher, but this drops to about 90 Ma. as the bias rectifier warms up.

The final switch (S/R) may be paralleled with an external relay if required, but remember that it carries the full 240v. from the mains. The leads to the relay may need by-passing to avoid radiation from inside the a.c. compartment.

TESTING PROCEDURE

First check that all circuit wiring is complete, and that all tubes are in place in the transmitter and the speech amplifier, but do not insert the 584GY rectifier in the modulator power supply until the bias voltage is set.

Open the p.a. h.t. lead to the p.a. compartment at the modulation transformer, leaving the h.t. off the 6146 and its clamp circuit until the driver stages are operating correctly.

Switch on the filament transformer only and check all heaters. If these are all OK, close the p.a. h.t. switch. Place the "C.w.-Ph." selector switch on "Phone," and close the S/R switch. This will place h.t. on the three sections of the signal shifter, the 25 watt lamp which is used as a dropping resistor from 580v. d.c., down to 350v., will be at practically full brilliancy, and the VR150 series dropping resistor can now be adjusted to light the VR tube at its correct brilliancy. If possible, open the cathode circuit of the VR tube, insert a

d.c. meter, and adjust the series resistance until the tube is drawing about 10 Ma. or 15 Ma. The tube should then take very low current, but will be alight when the final is on load.

Turn the meter selector to "I.G." (grid current to the final) and peak up the tuned circuits in the Isolator and the driver stages of the Signal Shifter, on all ranges in turn, to give maximum drive current to the p.a. grid circuit. The procedure is laid down in the instruction sheet given with the Signal Shifter, but if the 40 metre range has been altered as we did in the College transmitter to give better band spread, and to prevent instability when using phone on the 40 metre band, the isolator will be on 80 metres and the drive plate coil can be peaked at about 7100 Kc.

If a reliable frequency meter, such as the Bendix, is available adjust the oscillator as per instructions so that the pointer is correct at the 3500 and 7000 Kc. points on the dial, and if the trimmers are given a final correction at the high frequency end of the dial, the calibrations on the dial will be found to be reasonably correct.

If a Bendix is used, check its crystal against WWVH before saying that the Signal Shifter is sufficiently accurate to mark the band edges. The calibrations will be very close to correct, as the oscillator has been previously calibrated in the factory, and needs only slight adjustment. The drive on 80 metres will probably be too high, and may need backing off. The drive on all bands, however, will be between 4 and 8 Ma., but this value will, as usual, drop off when the final is taking load.

F.A. TUNING

Connect a 60 watt or a 75 watt lamp as a dummy load at the output terminal of the transmitter. Turn both output and input tuning condensers fully out of mesh. Switch the band selector switches to 10 metres, and tune the oscillator to about 28.2 Mc. on the tuning dial. Re-connect the p.a. h.t. through the modulation transformer to the p.a. stage. The h.t. will now be connected to the p.a. tubes, plate and screen, and to the clamper tube. Leave the modulator switched off or pull out its rectifier; we don't want it as yet. Place the selector on "phone," which saves the trouble of inserting the key in its socket, and closing the key.

Switch on in sequence: Filaments, p.a. h.t., then the S/R switch, and the p.a. plate current should show a reading of 150 Ma. or so. Tune the input meter of the pi-network for a dip, as is usual in tuning a p.a. stage. If there is no point at which a dip is obtained, switch off and read your "A.R." again, pages 2 and 3 of January, 1956, the pi-network tank circuit, by VK2ALJ. Either you have a 10 metre coil which is one turn too

large or too small, or your input tuning condenser has too large a capacity minimum. Try a different sized coil.

With a definite dip on the meter, close the output tuning condenser, re-tuning to the dip at the same time, until output lights the lamp load. Keep increasing the load until the plate input is at 125 Ma., with a single 6146. If you are using two 6146s in parallel, it should be a maximum of 180 Ma., which is the current at 100 watts input. At this stage it is a good idea to check the output frequency with an absorption or other meter, as it is quite possible to tune the output to 36 Mc., or some other unwanted frequency by an improper setting of the pi-network condensers.

The correct positions should be found and noted, as, if you are doubling in the final, the output will probably be on two bands at the same time; a pi-network is a good suppressor of harmonics, but it is not so good against overtones. Do not use the final as a doubler.

If the tuning is correct, the grid drive will have dropped slightly, but should the tuning be incorrect, the grid drive may increase due to regeneration, and it may be found that the final has a slight tendency to "take-off." Re-adjusting the tuning will take care of this. As a final check, switch from "phone" to "c.w.," insert the key and check the keying in the monitor, and by a check of the plate millimeter. The input should read practically zero with the key open.

It is recommended that you do not leave the transmitter in the "standby" position by leaving the key open on "c.w." When the transmitter is left in this position, the clamp is in continuous operation, and there is at least 10 watts of power being dissipated in the clamp tube dropping resistance. In plain English, there is a voltage drop of close up to 800 volts across this resistance and the p.a. screened compartments was never intended to enclose a "coaster." Open the S/R switch and save power. The heat during c.w. transmission is intermittent, and is dissipated from the compartment easily during periods of reception.

Repeat the tests on the other ranges—15, 20, 40 and on 80 metre bands. The number of turns on the pi-network coil may need adjustment, depending on the size of your input condenser, but the number of turns given in the article by VK2ALJ will normally be correct. ("A.R." January, 1956, page 3.)

MODULATOR ADJUSTMENT

The modulator unit could probably be tested as a separate unit, unless you have built this type of equipment before, and never made an error in wiring! If a separate test is made, remove the p.a. rectifier, unsolder the p.a. h.t. leads on

* 4 The Chair Road, Dee Why, N.S.W.

the secondary of the modulation transformer, and connect across the transformer output a 50 watt 4500 ohm resistance, in series with a 5 watt 100 ohm up to 500 ohm resistance. This resistance provides a convenient point to attach a c.r.o. or to clip in an a.c. milliammeter or a voltmeter.

After a preliminary check of heaters, etc., plug in the 5R4GY and switch on the modulator h.t., with your milliammeter selector on "Mod. Current." The current shown on the meter will be anything from about 10 Ma. up to 200 Ma., since you have not yet adjusted your 6L6 grid bias. Adjust this value from the bias pack by varying the load potentiometer, until the standing current is about 90 Ma., with no input from the microphone. If a relay is used to switch in the driver of the modulators, as in the "XY" rig, close this circuit with a piece of insulating strip (it has 300 volts d.c. on it) to complete the h.t. circuits, and proceed with a normal amplifier test.

As a reminder of the operating conditions, a pair of 6L6s in Class AB2 on full load will have about 360 volts on the plates, the screens require 270 volts, and the bias should be set, on load, to 22½ volts, negative. The potentiometer should be set, therefore, to give a current input of 90 Ma., with the microphone volume control turned right off, the driver relay closed. At full output, the plate plus the screen current is 220 Ma., giving a plate output of 47 watts, as per valve data book. This is, of course, on the primary of the modulation transformer, and the actual output is much less than this. This is equal to an a.c. output of 390 or 400 volts across the test load resistance, or to a current reading of about 90 Ma. a.c. through the resistance.

If distortion or other signs of overloading are noticed before the full output is obtained, additional dropping resistance may be needed in the h.t. supply to the pre-amplifier stages, or, alternatively, the screen voltages of the first two pentodes can be lowered.

FINAL TEST

Connect up the modulator and the p.a. circuits, insert all rectifier tubes, and check on all bands in turn for output on both modulation and on c.w., into

PORTABLE-MOBILE OPERATION NEW CONDITIONS

Following prolonged representation to the Amateur Administration, the Federal Executive of the Wireless Institute of Australia is pleased to announce that as from **1st May, 1956**, conditions of operation for Portable-Mobile equipment on frequencies in bands below 50 Mc. will be modified.

The conditions as stated in Paragraphs 40-51 of the Handbook for Operators of Amateur Wireless Stations will be varied as to provide for operation of Portable and Mobile equipment as follows:—

- (a) During the absence of a licensee from his usual address for periods up to **24 hours** WITHOUT Departmental approval being required.
- (b) For periods up to three months in any year subject to approval

being obtained from the Superintendent, Radio Branch, in the State in which the licensee normally resides.

It must also be noted that as at present the Department is prepared to issue mobile licences to persons whose calling merits granting of same.

Members interested in mobile or portable operation will, under section (a) above be able to operate their equipment on frequencies below 50 Mc. without the necessity of obtaining Departmental approval providing the 24 hour period is complied with.

Believing that this variation of operating conditions will attract many new experimenters to this field, it is suggested that members familiarise themselves with the relevant sections of the Handbook concerning this phase of Amateur activities.

the dummy load, listening in your monitor.

The p.a. meter should be perfectly steady with modulation, and the grid drive should not vary, unless there is over-modulation or unless the p.a. pi-network is improperly tuned. If there is improper tuning, it is easy to get regeneration and an upward shift in the grid current.

Do not test the modulation without a proper load on the p.a., either a lamp or the aerial, otherwise the condensers will arc-over, and you may have a really good burn-out either in the p.a. stage or possibly your p.a. shunt r.f. choke.

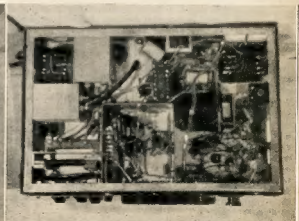
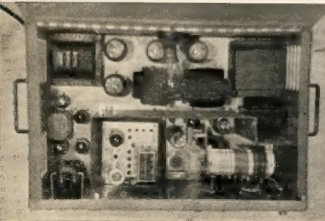
The final should now load into either a long wire, or into a co-axial feeder to the aerial tuner. An aerial coupler should be used to assist in harmonic suppression.

NETTING

To place the Signal Shifter on a selected frequency or to measure the frequency of an incoming signal on the receiver, leave the receiver in its normal

sensitivity and close the "netting" switch. This takes current from the oscillator only, from the modulator h.t. supply. The oscillator will not be heard in the receiver unless an open wire aerial is connected to the aerial coupler or unless a short wire is passed through the mesh of the screening. A quick monitoring check may be made by switching the receiver to a higher range, and the output from the transmitter should be strong enough to hear at about S4 or S5, but not loud enough to cause feedback, speaker to mike.

Finally, do not use the final as a doubler. It is possible to do so, but you will have output on two bands. A pi-network may suppress harmonics, but it has not a sufficient degree of suppression on lower frequencies than that to which the p.a. is tuned. Also, for full t.v.i. proofing, a low-pass filter should be used between the p.a. and the aerial coupler, to avoid any trace of harmonics in your neighbour's 30.5 to 36 Mc. i.f. channel when he buys his "Ultra-ultra" 300 guinea t.v. set.





Trail of wreckage left by the 1955 Maitland flood.

Aborigines were Wiser than the Whites

Aborigines were wiser than their white counterparts when it came to settlement in the Hunter River Valley district of New South Wales.

They kept to the surrounding hills — safe from the avalanche of water which they knew could bring sudden death and disaster.

Early in 1955, the worst flood in the history of the white man in Australia swept through the valley, causing privation and misery to thousands of people.

It also cut every form of communication. More than 10,000 subscribers' services and 400 trunk lines and telegraph channels were cut off

and it was estimated that the repair bill would total more than £500,000.

Safeguard for The Future. It was a costly lesson, but today science has found a way to reduce this sort of flood damage to a minimum.

A new resin* which permanently seals telephone terminal boxes in a solid waterproof block is being used by the Postmaster General's Department on its services throughout Australia.

SHELL scientists derived this resin from mineral oil to give communications the most effective waterproofing agent yet developed.

*Epikote Resin



RELAYS

(A Summary of a Technical Lecture* presented by Mr. KEITH MAIN to the South Australian Division)

HISTORY

In 1836, Professor Joseph Henry was faced with a problem. He had been accustomed to calling his students to lectures by means of a network of electric bells, but as the lines between the bells and their source of power grew longer, he was troubled with voltage drop which rendered the whole system somewhat unreliable.

After much thought and experiment, he devised and patented an "electromagnetic switch" which enabled him to ring the bells without having to bother about voltage drop. This was the earliest known use of a device which now-a-days is universally used, namely, the relay, though he did not call it that.

Samuel Morse, in the U.S.A., was having similar trouble. Using an electro-magnet invented by a Dr. Jackson, he had produced the telegraph "clicker" which worked very well for a while. But telegraph lines were extending as the frontier was pushed further west in the 60's and 70's. As the length of line increased so the initial voltage had to be raised to compensate for the voltage drop of the line.

When the first Atlantic cable was used, the applied voltage was of the order of 2,000 volts: this high d.c. potential was dangerous as well as difficult to handle.

Eventually someone thought of the system used by the famous Pony Express to cover long distances, so instead of a single circuit of perhaps 1,000 miles, an electro-magnet device was used to break the circuit into smaller distances. Since the Pony Express used relays of horses, this new device in the telegraphic services received the name "relay."

All these relays were d.c. devices until about 1925 when the possibility of using a.c. was investigated more thoroughly. From then until the outbreak of World War II, a.c. relays were used in greater numbers, but hostilities and the increasing use of complex equipment pushed forward the development of the d.c. relay to evolve the trouble-free device of present-day use.

CHOICE OF RELAY

When deciding which relay to use in any particular circuit, the average Amateur scrambles through the junk box until he comes up with a relay which has the required number of contacts. If he is lucky, the contacts will be arranged in such a way that they will do the job in hand. If he is very lucky, the relay will work on the voltage available and he has an even chance of winning a lottery! If not, he will set to, re-arrange the contacts and fiddle with the coil until the armature closes with the voltage available, the contacts do what is required and he now has a relay that is just what the doctor ordered. He proceeds then to wire it into the circuit.

*Lecture summarised by B. W. Austin (VKESCA) from technical lecture given by Mr. Keith Main, the South Australian representative of Lortimer Contacts Pty. Ltd., Melbourne.

The story which follows will tell him some of the things which he doesn't know about relays.

CONTACT MATERIAL

Fine silver (i.e. 99.5% pure) is sometimes used. This is very soft and bruises easily, but can carry heavy currents. Arcing causes bad pitting by melting the metal on one contact and depositing it on the surface of the other leaf. It is not used often, but may be found in special equipment.

Sterling silver and coin silver, both of which have a proportion of copper, are more commonly used, but suffer from the same disadvantages as fine silver. Imperfect mixing of the silver and copper in the alloy can cause very bad pitting and contamination of the surface from the sulphur in the copper may cause sticking contacts.

A mixture of silver and molybdenum or silver and nickel gives a measure of control over the above disadvantages. The molybdenum or nickel as a specially prepared powder is "mixed" with the silver by a process known as "sintering." Thus the molybdenum or nickel particles are separated on the surface by the silver. Hence the impact of the closing contacts is taken by the Mo or Ni particles, which, being hard, do not distort. Since the silver has a high conductivity, the contact resistance is very low. If an arc occurs it is split into a number of smaller arcs of smaller intensity by the Mo or Ni particles, the temperature is not sufficient to melt the silver and there is no transfer of metal. Contamination of the surface is overcome and a better contact is obtained.

Advantages of silver contacts: Heavy duty, do not clinker up, and wear better than others in heavy service.

Tungsten contacts may be used where high temperatures are encountered. Copper contacts are sometimes used as they can be subjected to a harder make and a higher contact pressure can be maintained. However, oxidation is a problem and phosphorus is added to give resilience and protection.

TYPE OF CONTACT AND SERVICE

Seventeen different conditions determine the type of contact; a few being, operating temperature, the load to be carried, frequency of operation, a.c. or d.c. circuits, whether the circuit is inductive or capacitive, current surges, voltage, location, etc.

Dirt on the contact surfaces is probably the greatest problem. A small speck of dust can prevent the contacts from closing properly and various methods are used to prevent this. The 3000 type relay uses domed contacts, which have a high contact pressure over a small area. As the domes contact each other, any dust particles are wiped off (hence self-cleaning). However, the domed types can and do "creep." The constant pounding on the closing of the contacts distorts the contacts in the direction of contact.

In relays having longer contacts than the 3000 type, the contacts are cleaned

by the movement of one surface over the other during overtravel. The bottom contact wipes as it travels in its arc. If contacts have to make and break rapidly, spring tension must be light, but overtravel will still wipe the surfaces clean. The wiping action also overcomes any oxide film which may have formed on the surfaces.

RATING OF CONTACTS

A direct current circuit is the hardest to design contacts for. The full potential is across the contacts at all times and consequently the full current has to be broken. When an arc commences it is hard to quench.

In an a.c. circuit, the potential varies, even to zero and the arc is thus self-quenching.

The current carried by the contacts is restricted by the carrying capacity of the leaves and pigtails. In the d.c. circuit, even though the contact area is sufficient and the current is within the ratings of the pigtails and leaves, the arc on break will determine the maximum current allowable. The wattage must not be exceeded. Roughly, if the voltage is doubled (if the gap permits), it is better to reduce the current to a third for safety.

METHODS OF CONTROLLING ARCS

As the damage caused by arcing is dependent on the heat generated, the object is to reduce arc heating time to a minimum.

1. By using a "snap" break. The object is to get the contacts past the point at which the arc can be maintained, in the shortest possible time. "Snap" action is noisy and causes excessive wear at the hinge due to the strong spring required.

2. By using a double break, either a double pole or a single pole double break. Sometimes parallel contacts are used. The double break type is effectively two sets of contacts, separated by a distance, both of which open simultaneously, being actuated by the same solenoid. The parallel contacts are those usually seen on 3000 type relays, i.e. two sets of contacts on the same leaf. The two sets never contact or break simultaneously and they "bounce" to even out the loading if the relay is fast enough.

3. The "blow-out" quenches the arc by using a magnetic field, either from a coil or a permanent magnet. The field of the coil or magnet is directed across the contacts so that it repels the arc away from the points. The coil type may be used on either a.c. or d.c., but the permanent magnet is restricted to d.c. circuits as the polarity of the magnet remains the same. This method is particularly effective for severe arcing on d.c. circuits.

COIL DESIGN

When designing or rewinding a relay solenoid, the important thing to watch is the ampere-turns product. It is not possible to reduce the number of turns to accommodate a lower voltage with-

out losing efficiency. If the operating voltage must be reduced (i.e. the supply is lower than the rating of the solenoid) then use a smaller gauge of wire and put on more turns. The ampere-turns must remain the same (or as near to as possible) the original winding. If one gauge smaller is used when re-winding, then remember that the resistance for an equal length will be 1.59 times greater. Two gauges increase the resistance by 2.62 times.

With a.c. operated relays, in addition to the resistance of the wire, the inductance of the solenoid introduces a reactive component. There are internal heat losses and self inductance gives a power-factor lag.

However, the a.c. relay works over a wider range of voltages than the d.c. type. A 230 volt relay will operate between 200v. a.c. and the upper limit likely to be experienced due to line fluctuations.

If using two a.c. relays in series, one lightly loaded (by spring and/or contacts) and the other heavily, the lightly loaded relay will often slap in before the other and act as a choke. This may prevent the second relay from closing. The remedy is to use a smaller travel on the heavily loaded relay so that both will close together. Relays required to have positive fast action (e.g. a safety switch) may have a low voltage coil. The higher voltage will be safe as long as the duty cycle is short.

OIL IMMERSED RELAYS

These are used where heat caused by high currents creates difficulties, or where arcing is a problem. All leads must be cambric covered. Rubber insulation must not be used because the sulphur contained in the rubber would be transferred to the contacts. The oil dissipates the heat, and quenches arcs and thus maintains the temper of the leaves. Transformer oil must be used and the whole unit must be sealed to exclude moisture.

SPECIAL RELAYS

Delayed Action Types

Slug: The copper slug forms a secondary winding and the induced flux opposes the original flux, delaying both make and break. Delays up to 0.5 second can be obtained and may be adjusted by the screw on the top and by varying the load, i.e. the number of leaves. The copper slug may be at the heel or the toe of the relay, varying either the make or the break, and its size determines the period of the delay (from 33 to 500 milliseconds).

Inertia: This is non-magnetic and is achieved by weights and the mounting position of the relay.

Mercury: A capillary thread of mercury flows on tilting the reservoir at a rate depending on the diameter and angle of tilt. Delays up to five minutes can be achieved.

Hot Wire: Current passing through a bi-metal strip causes expansion and closing of the circuit. The ambient temperature will vary the closing time.

Inverted Resistance: As a current passes through carbon generating heat, the resistance drops and a point is reached when the increased current closes the armature of the relay. This is very critical and is affected by ambient temperatures.

Motor: This uses a self-starting motor which operates a cam making or breaking the contacts. To alter the time delay either the motor speed or the gearing has to be changed.

GENERAL

Maximum operating currents of contacts for general usage relays:—

Silver 300 Ma.
Platinum 1000 Ma.
Heavy duty (large) 5 Amp.

The 3000 type relay generally has a 4 watt coil (operating rating). Up to 16 making contacts may be had on one 3000 type relay.

It is far more satisfactory to design the circuit first and then get a relay which will do the job, than to start with a relay and design the circuit around it.

Relays are cheap!

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INTRUDERS

Official monitoring stations of several signatory nations of the Atlantic City Convention send regular reports of intercepts to the International Frequency Registration Board at I.T.U. Headquarters in Geneva.

The list below shows pertinent portions of the I.F.R.E. report for the period November, 1954, to July, 1955.

If members find that these stations are interfering with their transmission, they are requested to send details to Federal Executive (Federal Secretary, Box 2611W, G.P.O., Melbourne). Information should include date-time, frequency, type of transmission, etc., so that it can be consolidated and correlated for further action.

Station	Type of Operation	Freq. (Kc.)
Mozambique	Broadcast	3570
Russia	Broadcast	3760
Iran	Broadcast	3758, 3775, 3778, 3785
PM2, PM7	Manual A1	7000
Russia	Broadcast	7091, 7020, 7025, 7030, 7035
Spain	Broadcast	7003, 7018, 7085, 7087, 7090
Pakistan	Broadcast	7009
OWM (No. Korea)	A1 Press	7016
Greece	Broadcast	7032, 7034, 7040, 7045, 7080, 7082
Fren. Oceania	Broadcast	7025
Egypt	Broadcast	7040, 7045, 7050, 7055
France	Broadcast	7040, 7045, 7048
EAU	Auto. A1	7055
YED	Manual A1	7058
India	Broadcast	7065
It. Somaliland	Broadcast	7072
Iraq	Broadcast	7078
Turkey	Broadcast	7085, 7081
YEE	Manual A1	7084
Tangiers	Broadcast	7090, 7100
ZAG	Auto. A1	7092
ORO	Auto. A1	7094
Saudi Arabia	Broadcast	7094
Indonesia	Broadcast	7098
Voice of America	Broadcast	7100
GPN	Spec. Auto.	14001
FYK	A-1	14015
ZEP	Auto. A1	14015
CBR	Manual A1	14019
RAC	Auto. A1	14028, 14039
HBI	Manual A1	14034
FOD	Auto. A1	14041
GEP	Auto. A1	14043
G3H8	Auto. A1	14057
UPL	Manual A1	14082
DL3	Auto. A1	14082
OMZ	Auto. A1	14089
PRP	A-2	14117
DCP	Auto. A1	14132
WWC45	Auto. A1	14185
ZAG	Auto. A1	14173, 14178
LCP	Auto. A1	14255
Russia	Broadcast	14270
BCW	Auto. A1	14284
OLU	Auto. A1	21000.2
ZQD	Auto. A1	21013
CML	Auto. A1	21724
RZA	A-1	21319
DGS	Auto. A1	21350
ZLP	Auto. A1	21405

Note.—The Voice of America station is reported to have ceased operation 7100 Kc. If VOA is heard again in 7000-7100 Kc., please notify Headquarters.

CONTEST RESULTS

NATIONAL FIELD DAY, 1956

OUTRIGHT WINNERS

C.W. Section: VK7LJ (operators—L. R. Jensen, VK7LJ; K. E. Millin, VK7KA); score, 80 points.

Phone Section: VK4TN (operator—A. Harris, VK4TN); score, 188 points.

Open Section: VK2AQJ (operators—K. B. Pounsett, VK2AQJ; S. E. Brown, VK2ASB); score, 197 points.

STATE WINNERS

C.W. Section

New South Wales: VK2ARZ (operator, M. R. B. Riley); score, 48 points.

Victoria: VK3ADW (operator, D. A. Wardlaw); score, 25 points.

No entries from VK4, VK5, VK6, VK7, or VK9.

Phone Section

New South Wales: VK2WI (operators, D. J. Pollard, VK2ASW; S. Bourke, VK2EL); score, 123 points.

Victoria: VK3ADW (operator, D. A. Wardlaw); score, 134 points.

Tasmania: VK7JO (operator, J. G. Oliver); score, 101 points.

No entries from VK4, VK5, VK6, or VK9.

Open Section

Victoria: VK3ZM (operators, H. D. Nichill, VK3ZM; D. McKenzie, VK3ALQ); score, 185 points.

Tasmania: VK7JO (operator, J. G. Oliver); score, 103 points.

No entries from VK2, VK4, VK5, VK6 or VK9.

ROSS HULL MEMORIAL V.H.F., 1955-56

OUTRIGHT WINNER AND

TROPHY WINNER

VK3GM (operator, G. R. McCulloch); score, 968 points.

Call Area Awards

VK2ABC (operator, F. J. Stirik); score, 303 pts. VK2ZAA (operator, R. K. Dodd); score, 38 pts.

VK3GM (operator, G. R. McCulloch); score, 968 pts. VK3ZAE (operator, R. J. Elliott); score, 780 pts.

VK4NG (operator, R. H. Greenwood); score, 324 pts.

VK5RO (operator, C. A. Moore); score, 968 pts. VK3ZAW (operator, N. C. White); score, 230 pts.

Fixed Station Section

New South Wales: VK2ZS (operator, W. J. Smith); score, 44 points.

Victoria: VK3YS (operator, F. G. Ball); score, 90 points.

South Australia: VK5AB (operator, B. C. Jellett); score, 100 points.

No entries from VK4, VK6, VK7 or VK9.

LISTENERS' AWARD

N. G. Clarke, score 144 points.

LOGS RECEIVED

The following stations submitted logs:

C.W. Section	Pts.	Open Section	Pts.
VK7LJ	80	VK2AQJ	197
VK2ARZ	48	VK3ZM	185
VK2WI	46	VK2WI	169
VK3ADW	25	VK3ADW	159
		VK3GE	130
		VK7JO	103
		VK2RS	103
		VK2ARZ	48

Phone Section

Pts.	Open Section	Pts.
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VK4TN 188 VK2ARZ 48

VK3ADW 134 VK3ZM 185

VK3LN 125 VK2WI 169

VK2EL 123 VK3ADW 159

VK3GE 119 VK3GE 130

VK2XU 105 VK7JO 103

VK2RS 103 VK2RS 103

VK2ARZ 23 VK2ARZ 48

VK2AHA check VK2AHA check

Fixed Station

VK5AB 197

VK3YS 185

VK2ZS 169

VK3XB 159

VK3OJ 130

VK3ARJ 103

VK5XU 48

VK2PN 25

VK3ZAJ 10

Listener

N. G. Clarke 144

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1/2"	22/6	1-3/16"	35/-
5/8"	22/6	1-1/4"	47/6
11/16"	23/6	1-1/2"	47/6
3/4"	24/6	2"	62/6
1"	31/6		

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3/4"	24/2	2-3/32"	62/6
7/8"	28/8	1-1/4"	42/6
1"	31/8	1" Square	47/11

1-1/8" 31/8
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"G" 75 - 175 "	"H" 150 - 300 "

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HINTS AND KINKS

FINISHING TEST INSTRUMENT PANELS

A very fine and workman-like finish can be made with panels for test instruments, etc., by first cleaning the aluminium panel with some steel wool and spraying (a fly spray is excellent for the job) with clear varnish as used for coating charcoal and pencil sketches. This varnish can be obtained from most stores dealing in artists' colours and oils.

Another good clear coating (which the writer prefers) is ordinary clear nail lacquer. This can be brushed on with a fine camel hair brush or even the small brush that comes with the bottle. It leaves a very clear and durable finish.

If prior to varnishing, the panel is drilled and lettered dark with black Indian Ink, a quite professional job results and the coat of lacquer protects the ink from cracking or being rubbed off.—VK3SZ (reprinted from "A.R." Jan. 1946).

MODEL "1XA" CRYSTAL MICROPHONE INSERT



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- Australian made throughout.
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TECHNICAL DETAILS

Rochelle salt crystal microphones are perhaps the most widely used for all types of service where quality speech and music reproduction at high output levels is a requirement. They are dependable in performance and when fitted with the appropriate "Zephyrfil" filter, their frequency response may be adjusted to suit any application or requirement.

This crystal microphone requires to be terminated with a high value parallel load of the order of 1 to 5 megohms for best results.

The mass of the moving parts is small, hence the sensitivity is high and a high efficiency is achieved.

Light gauge solder lugs are provided so that excessive heat in soldering will not be transmitted to the crystal element.

When mounted in a microphone cage, it is recommended that the insert be suspended in rubber, to eliminate shock and vibration.

One of the connecting lugs is directly connected to the case and care should be taken to solder the metal shield of the microphone cable to this solder lug, keeping the unscreened portion of the centre conductor as short as possible to eliminate hum pick-up.

All crystal elements are mounted on high grade suspension pillars, being fixed thereto with a good quality cement, thus ensuring stability and long life.

Case $1\frac{1}{2}$ " diameter (rear), $\frac{3}{8}$ " thickness, 1-13/16" overall diameter (front) with filter fitted.

Frequency Response = 60-6,500 c.p.s.
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North Coast and Tablelands Zone (VK2) Convention

Urunga, Easter, 1956

The Eighth Annual Urunga Convention is new history and many pleasant memories will be lingering for some time to come.

Many enjoyable hours were spent by a gathering of 27 Amateurs, 13 associates and 15 ladies, together with numerous junior ops. Some enjoyed the scenic beauty of the district, others the contests, some the famous jacaranda juice, whilst everyone rejoiced in reunion with old friends and embraced the opportunity of meeting the "bloke" they have often heard or QSOed. Speaking of re-unions, it was like old times to have Crieff Retallick, VK2XO, and XYL Jean among those present. Crieff, of course, was the original founder and organiser for several years before he was reluctantly compelled to relax for health reasons and it was indeed good to have you with us Crieff. If my guess is correct, it won't be long before Crieff will be on 40 mhz ear-bashing you all about Urunga 1957!

Many of our visitors were from Interstate, most of them on a second visit, whilst Jim (Don Pedro) 4PR has been coming for several years. John 4FP was apparently lost without his beloved Bullbuds brew, but reckons on cleaning up the 40 mhz events next year using a portable pair of 813s, whilst Don 3ALQ is seriously considering a 2 mhz "sniffer" outfit.

The weather was kind to the Convention and did not interfere with the various activities.

Many stories can be told of the Convention, but the crowning glory of all is on Chick 2DK, of Narrabri. Next time you hear Chick be sure to ask him how he managed to reduce the load on his Clapp oscillator to restore stability? I presume that Chick knows what to do if he gets in the dog-house, but if not, just ask Rod 2ACU—he's sure to know.

An informal discussion group was held on the Friday night with the N.S.W. Division President, Jim 2YC, as a real target and source of information. Topics discussed covered emergency operations, home for VK2WI, schemes for improving W.I.A. finance and several other problems introduced by the boys. This discussion group has now become a part of the Convention, so if you have a topic you would like discussed, write to me, to the I can prepare an agenda, but remember you must be there to commence the discussion.

Telegrams wishing the Convention every success were received from the Federal Secretary, Doug 3DU, and Mrs. Bowie, Ted 2AVG and Peter 2FA. Apologies too numerous to mention were received also.

Registration took place on the Saturday morning and a list of those who registered is given below.

VKs 2XT, 2AAB, 2AWQ, 2ABP and XYL, 2AOR and family, 2ZBA, 4PR,

4FP, 2AHH, 2ABU, 2ACU, 2AHA and family, 2DK, 4HR and XYL, 4TN, 3ALQ and son, 2AID, 2AHH and XYL, 2YC, 2AFS and family, 2ASW, 2PY, 2AWG, 2XO and XYL, 2ADT and family, 2AJF, 2ADN and family, Associate Members Snow McAuley, Ray James, Bob Bailey and XYL, Norm Dash, Norm Moody and XYL, Harry Miller and XYL, Norm Burton, Bill Clarke and XYL, Brian Starke, Fred Reed, Les Wilson and XYL, Jim McIntosh, Ray Hogan, and A. Yelds.

The results of the various competitions is given below, but history must surely have been made as each event was won by the same contestant, and not to be outdone in any department, he drew the lucky registration number as well! This, however, was re-drawn and the prize went to a young associate member.

Gerry Challenger Memorial Contest on 40 metres for portable or mobile equipment not operated from a town supply: 1st, VK2AHH, 71 pts.; 2nd, VK2ASW, 59 pts.; 3rd, VK3ALQ, 47 pts.

144 Mc. Hidden Transmitter Hunt: 1st, VK2AHH, in 50 minutes; 2nd, Fred Reed (Assoc.), 51 min.

Urunga Scramble: Any band, any power from any source: 1st, VK2AHH, 35 contacts; 2nd, VK2XT, 33 contacts; 3rd, VK2ADT and VK2ASW drew with 28 contacts

Best Miles For Wats in the Scramble: VK2ASW, who worked VK3LR on 9w.

Gents' Registration No.: Brian Starke (Assoc.).

Ladies' Registration No.: Mrs. Les Sparke (XYL of VK2AOR).

A very enjoyable evening was had on Easter Saturday when Crieff and Jean Retallick made their "Do-Me" shack available to the gathering for a film evening which was followed later by the discharge of an 18 uf. Tank Capacity (hic! beg pardon, capacitor). Ted Hamey once again was the projectionist and he showed some interesting films on Atomic Power Houses, the development of the modern jet engine from 1926, together with inevitable funnies. We all thank you Ted for a grand show. Several of the boys exhibited colored slides which were really worth while viewing. Crieff showed shots of the Bellingen River scenery and many from his trip to Tasmania Ken 2PY screened views from previous Urunga Conventions, whilst Errol 2AHH featured views of his wedding and honeymoon trip. We all had a grand evening and we thank you Crieff and Jean for having us at your place.

The prize giving function was held in the form of a concert in the School of Arts Hall. Jack 2ADN arranged the programme and I'm sure it was enjoyed by all, especially by the Davy Crocketts in the front row.

The antics of Vic Hardacre (and how he can wobble it) and Lindsay Cox are something that you have to see for yourself. Jack Gerard, aided by his famous doll, George, provided the company with laughs and some clever character impersonations. Three lovely little ladies including Janice and Lynette Hardacre skilfully presented tap dances and were most attractively dressed in keeping with their dances. Our sincere thanks go out to our artists for their excellent performances and to Jack 2ADN for his arrangement of the entertainment, both on Saturday and Sunday evenings.

At the conclusion of the concert, the Urunga Progress Association treated the Convention to supper and we all heartily thank them for their hospitality. After supper a lucky dip was passed around and those present received a useful parcel of resistors. Abe 2ABU then auctioned off a large box of assorted tubes and a modulated oscillator. Next year it is hoped that the range can be increased as this item was most enthusiastically received. Thanks Abe for a job well done.

Due acknowledgment and thanks must be given to all those who helped in the running of the Convention, and also to the radio and electrical houses of Australian Electrical Industries, United Radio Distributors and Amalgamated Wireless A/sia Ltd. for the generous donation of competition prizes. The N.S.W. Division Disposal Committee also aided in providing several items of equipment for competition winners.

The Convention for 1957 has the appearance of being a "super" show as offers of extra help from "new blood" have been made and the wheels will soon turn to co-ordinate this help. If you have attended a convention before, let me have your ideas so that the committee can do their best to give you the kind of convention you would like. If you have not attended before, watch these pages for information, but set aside the 1957 Easter Week-end NOW and bring the YL or YF with you where she can have a real holiday from home whilst you can meet all the boys and raggle-waggle in pleasant conditions without QRM.

Remember Easter 1957—it's on again!
—N. A. Hanson, VK2AHH, Zone Officer.

SUBSCRIPTIONS

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VOLTS, AMPS. AND MAN

MAN'S CONTACT WITH HIS ELECTRICAL ENVIRONMENT

PART TWO

BY ROBERT H. BLACK,* M.D.

MAN'S ACCIDENTAL CONTACT WITH INDUSTRIAL ELECTRICITY

Judicial electrocution and electroconvulsive treatment have demonstrated the two extremes of the application of electricity to the human body: the one a deliberate obliteration of life and the other the administration of a safe dosage to produce a desired effect. In both of these cases conditions are under strict control. This is not the case in accidental contact with industrial electricity supplies. The effects of such contacts vary considerably, ranging from the familiar unpleasant bump to a fatal result.

In Australia, during the five-year period from 1946 to 1950, electricity (lightning excepted) killed 226 males and 31 females and the commonest age for dying in this fashion was 20-29 years. This is approximately one quarter of the number of deaths due to poliomyelitis which occurred in the same period—and poliomyelitis was epidemic during some of this time.

Probably the first death from accidental contact with industrial electricity occurred in 1879, although currents powerful enough to have caused death were employed to light the operatic stage in Paris (at the first performance of Meyerbeer's "Le Prophete") as early as 1849, and English lighthouses in 1857. In the year 1879 a stage carpenter was killed at Lyon by the alternating current of a Siemens dynamo which was developing about 250 volts at the time. The first death in England occurred in 1880 when a handman short-circuited a powerful electric battery. Since then the number of deaths from electricity has steadily increased as the use of electricity has extended.

As it is obviously impossible to experiment on man with electric currents to determine what amounts are lethal under various conditions, conclusions have to be drawn from a survey of the circumstances involved in accidental contacts as they occur. This approach permits some general conclusions to be drawn.

The type of contact with the conductor is one of the most important factors in determining the result of this contact. The dry skin offers marked resistance to the passage of electrical currents. This has been variously reported as being 8,000 to 40,000 ohms, but when the skin is damp the resistance may drop as low as 500 ohms. When the contact is bad 100 volts may be innocuous but the same pressure may be sufficient to cause death when the contact is good. The point being that, for a given voltage, it is the value of the current which is important.

Voltages as low as 46 have caused accidental death, and voltages of 110-117 have often caused fatal accidents. On the other hand recovery has taken place after contact with 500 volts, and

very many people have survived contact with 240 volts. A case is recorded where 750 milliamperes at 4,500 volts passed for several minutes through a man from hand to hand and the victim recovered after prolonged artificial respiration. Another recovered after 20,000 volts passed through him to a dry concrete floor.

Although there has been some disagreement on the subject it is now considered that direct current is safer than 50 cycle alternating current. With alternating currents of 50 cycles perception begins when about 2 milliamperes are flowing through the body and currents of 20 milliamperes are intolerable to many subjects. Alternations of 50 cycles per second are very efficient in causing tetanic spasm of muscles. If the frequency is greatly increased, say to 1 megacycle/second, nerve response cannot keep pace and the subject may experience nothing more than warmth. Accidental contact with high frequency conductors may result in serious burns. Direct currents, after the painful initial contact, can be tolerated up to appreciable values without discomfort.

The parts of the body through which the current passes is of importance. If the circuit is confined to a part of a limb burning only may result, whereas if it passes between the hands or between head and feet vital centres of the body are traversed and the current may affect the brain or the heart. Thus a child on a dry floor bit through some flex and was merely burned.

Other factors which may affect the outcome of the accidental contact are the duration of the contact, the amount of current available at the source, and the state of health of the victim.

Death from accidental electric shock may be due to the current paralysing a centre in the brain which controls breathing, or to its action on the heart where it disorganises the regular beat and causes an irregular and widespread twitching of the heart muscle and cessation of its pumping action; or it may cause both of these.

In non-fatal shocks temporary deafness may occur and the victim cannot hear his cries for help. Electricians who sustain minor shocks speak of "moons" which they see as luminous circles. These are commonest when the head is included in the circuit and are characteristic of headphone shocks. Consciousness may be lost or retained; if it is lost there may be loss of memory for recent events as with lightning stroke. Burns of varying degrees may occur and some of these are severe. There is a great individual variation in the susceptibility to shock, but there is no evidence that increased tolerance occurs with repeated shocks; on the contrary the opposite seems to be the case if one can apply the results of experiments on animals.

FIRST AID TREATMENT

Before proceeding to preventive measures the first aid treatment of electric shock should be mentioned. The current should be switched off. If this is not possible the victim should be removed from contact with the source, care being taken that the rescuer does not become a second victim by protecting his hands with some insulating material such as several thicknesses of dry cloth or rubber gloves. Then artificial respiration should be applied, meantime summoning medical assistance.

PREVENTIVE MEASURES

In the United Kingdom 38% of industrial fatalities from electrical accidents are due to the use of electrical hand-tools. Here the contact is over a relatively large area, the skin is often moist and the alternating current causes the muscles to hold the handle in a tight grip. The common safeguard is to earth the metal framework of the tool so that if a defect occurs in the insulation the leak current passes along the earth wire and the surge of this current should blow the fuse. This is what happens when things go according to plan, but it is obvious, from the number of deaths that occur, that either the safeguard of earthing is not always carried out or that it has been ineffective.

Apart from wilful neglect the common reason for omitting an earth connection is that there is no three-way socket where the use of the apparatus is required and a two-wire patch cord is plugged into a lamp socket. The apparatus still works but the safeguard has been removed. Uncertainty as to the use of the third wire in three core flex often results in its being tucked out of the way inside the lamp holder. If this wire touches the live terminal the portable apparatus becomes "live." The earth wire may pull out of its terminal or it may break. A test set is easily installed to test if the tool is earthed at the socket by using a small bulb and battery and a test point to touch with the tool.

However a third or earthed wire going to the outlet socket is not a guarantee of safety as the earth return lead beyond the socket may be faulty or the method of earthing to the mass of earth may be ineffective. Unless there is periodic testing of the continuity resistance there can be no assurance that it is satisfactory and affords the necessary safeguard against shock.

The most satisfactory method of safeguarding users of portable electric equipment is by the use of low voltage, for example, 55 volt transformers with the centre-tap earthed.

The Standards Association of Australia has produced a pamphlet of especial interest in regard to safety measures associated with radio equipment. This is the S.A.A. Radio Code of

1937. A copy should be owned, and read, by all concerned in the construction and use of radio equipment and the specifications should be followed to reduce the risk of electrical accident.

Electrical accidents have not increased in proportion to the amount of electricity used. Various factors have played their part in achieving this fortunate state of affairs, especially the efforts made within the electrical industry to maintain good standards of safety. Looking at the occupational categories in which electrical accidents occur it is found that electricians and electrical fitters sustain the largest number of accidents. Many of the accidents are avoidable in the sense that risk is taken, either knowingly or because of under-estimating the consequences, and thus a good deal of importance attaches to initial training and the supervision of work. Accidents result from over-confidence, inexperience and sometimes carelessness.

Education, therefore, must play a large part in the prevention of electrical accidents. This applies not only to the users of electrical supplies and equipment, but also to those who manufacture and install them. Instruction in the dangers of electricity should commence in childhood, but the holes for the plug in an electrical socket should be so constructed that the inquisitive child cannot poke his fingers in them to see if the current is on.

Electricity is an extremely useful tool but, as with all tools, one must learn to use it properly; it is a powerful tool and careless use can result, not in a bruised thumb or a cut finger, but in death.

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A CHEAP AND EFFECTIVE "S" METER

BY J. G. OLIVER,* VK7JO

Once you have used an "S" meter on your receiver you will wonder how you ever managed without one. Here is a cheap way of making a very effective direct reading meter.

Firstly, find that burnt out r.f. ammeter that is lying at the bottom of the junk box, or if you have to, purchase one for a few shillings at the disposals stores. Remove the case and scale plate; this should expose the bakelite base, undo these and unsolder the thermo-couple, resoldering the leads from the meter coil direct to the terminals on the back.

Most likely the meter will have two plugs instead of terminals; these should be removed and replaced by two terminals. The movement can now be screwed back on to the base.

considered an "S9" signal gave a reading of 9 on the scale.

It was found that these meters have very poor damping, but the inclusion of "Rs" made the meter give a steady reading and also prevented damage when the i.f. gain control was turned right off.

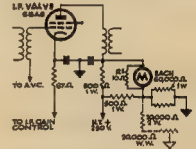


Fig. 2.



Fig. 1.

Before the dial plate is replaced remove the lettering and scale reading with metal polish, being careful to leave the actual scale itself, then with Indian ink print on the "S" units, making "S9" about one-third of the scale as shown in Fig. 1. The scale can now be replaced and the meter put back into its case.

Now for the wiring in the set. This is very simple, the meter being connected in the h.t. supply to the i.f. amplifier valve as shown in Fig. 2.

The values shown on the wiring diagram are those used by the writer, but to find values suitable for any set connect a 20,000 ohm variable resistance, as shown by the dotted lines, and adjust this until the meter reads zero, the value can then be read by an ohmmeter and a fixed resistance substituted.

The meter must be connected the right way round, and this can be found by experiment. With regard to "Rs" this was wound with a bit of resistance wire and adjusted so that what was

WHAT DO YOU THINK?

You have no doubt noticed that pages 3, 4, 21, and 22 are printed on better class paper. We would draw your attention to the quality of the reproductions on the above-mentioned pages. May we suggest you compare the detail in the "2YY" Transmitter on page 3 of last month's issue with that on page 3 of this issue.

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2EB—R. J. Bews, 71 Hills St., Tamworth.
2IN—R. C. Meadows, 91 Bixland Rd., Rhodes.
2TO—L. G. England, 111 Dawson St., Lismore.
2ZZ—T. F. Pike, in lieu of 2ATE.
2ZBE—R. C. Proulx, 9 Agnes St., Mayfield, Newcastle.
Victoria
3CF—L. Sebire, Delaney Rd., Wandin North.
3CN—L. G. Walters, 7 Howell St., Moorabbin, S.20.
3DW—K. R. Cakesbread, 45 Barrier St., Benalla.
3EZ—C. E. Sprong, 377 Upper Heidelberg Rd., Ivanhoe, N.31.
3ARN—C. W. H. Rasmussen, 348 Bernard St., Cheltenham, S.22.

- 3ZCA—R. J. Skevington**, 53 Grange Rd., Toorak.
3ZDG—J. DeG. MacMillan, 8 Hamlyn St., Easendon.
3ZDJ—D. G. Johns, Johnsons Rd., South Warrandyte.
Queensland
4DD—J. Pooks, 37 Henry St., Townsville.
Island
5FR—W. R. Franz, 1 Short St., Decosta Park.
5ZAF—D. G. Pfeiffer, 326 Marion Rd., Plympton.
5ZBD—C. Taylor, 157 Hill St., Nth. Adelaide.
Tasmania
7ZAW—P. Woodruff, Beauty Point.

CHANGES OF ADDRESS

- VK—** New South Wales
2EY—J. P. Meachon, C/o Sgt's Mess, R.A.A.F. Station, Canberra.
2GE—M. G. Dalton, 33 Mallon Rd., Epping.
2II—M. J. Moore, Sunshaven Ave., Dubbo.
2ID—J. Davis, Elizabeth Cres., Newport.
2LE—F. H. S. Lee, 70 Round Drive, Avoca Beach, via Gosford.
2NQ—N. S. Piermont, Lot D, Loftus Ave., Loftus Heights.
VK2QR—J. E. R. Burstall, Wonder Ave., Balli.
2TW—G. C. Smith, 30 Collis St., Cammeray.
2VJ—C. W. Johnson, Box 623, P.O. Newcastle.
2ACV—A. G. Mulcahy, 89 Riverview Ave., Kyles Bay.
2AHK—A. C. Clark, 15 Ross St., Kyogle.
2AIK—C. T. Horne, 1 Excelior Rd., Cronulla.
2ALG—J. A. Ackerman, "Idiewild", 77 Bourke St., North Sydney.
2APB—K. H. Ransford, 8 Pitt St., Coffs Harbour.
2APJ—A. G. Grimmonds, 118 Gennons Rd., Caringbah.
2ATB—F. R. Gale, 3 Lambert St., Cammeray.
2AUR—G. V. Randall, 45 Bellevue St., Charingwood.
2AVL—C. F. Luck, 30 Yethorpe Rd., Caringbah.

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- 2TV—A. C. Knight**, 8 O'Malley Cres., Dandenong North.
2MQ—J. A. Cusick, Lot 49, Great Ryrie St., Heathmont.
2RT—J. R. Agnew, 58 Shepherd St., Surrey Hills.
2NE—R. H. Hall, 3 Eden Court, Toorak.
2WG—G. C. Chirnside, 8 Clenden Rd., Armadale.
2ADA—J. B. Jarman, L.A.C. 411488, R.A.A.F., Balhurst.
2AKJ—J. B. Battrick, Bayview Rd. (off Yullie St.), Frankston.
2AMZ—R. G. Powell, St. Columba's Hall, Murdoch St., Wangaratta.

Queensland

- 4AX—H. R. Denby**, 89 O'Keefe St., Cairns.
6CJ—C. W. Marley, Richardson Rd., Park Ave., Rockhampton.
6CM—T. M. B. Elliott, "Kelson", Wickham Tce., Hills.
4EL—J. J. Lake, National Radio Station 4QN, Cleveland.
4PB—P. S. Beech, 315 George St., Brisbane.
4MA—A. E. Morrison, C/o. State School, Mt. Garnett.
4MV—J. R. McInish, 36 Newman Ave., Camp Hill, Brisbane.
4RJ—A. H. Gordon, 26 Lockhart St., Garbutt, Townsville.
4SD—A. H. Sharland, 27 Patterson St., Wynnum North, Brisbane.
4ZS—C. E. Ryan, C/o Mr. A. Byrne, 348 Campbell St., Rockhampton.
4ZZ—J. L. Kane, Barambah St., Rockhampton.

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- 8EY—M. R. Dow**, 7 Welwyn Rd., Manningsham.
8LM—H. J. Strachan, 3 Brookman Court, Blair Hills.
8PQ—P. Mucart, 1 Bickford St., Richmond.
8RR—R. G. Harris, Forest Ave., Haworthodena.

Western Australia

- 8KJ—B. H. Gales**, Station 5 Draw St., Albany.
8Pala—C/o A. K. Collins, C/o, 133 York St., Albany.
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- 7LS—L. S. Edgington**, 2 Jenner St., Wynard.
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CANCELLED CALL SIGNS

- VK—** New South Wales
2DG—K. Rudkin.
3LZ—R. Macfeld.
2TR—T. R. Anthony.
2ACZ—D. J. Allen.
2ANZ—T. P. Shortall.
2ATP—J. F. Pike, (Now VK2ZZ).
Victoria
3AVS—T. M. Streifield.
3ZBT—C. Taylor, (Now VK3ZBD).
Queensland
4BR—L. G. England, (Now VK3TO).
4FR—W. R. Franz, (Now VK3FR).
Western Australia
6ZAN—R. J. Skevington, (Now VK3ZCA).
Tasmania
7PR—Launceston Technical College.
Territories
9CH—C. W. H. Rasmussen, (Now VK3ARN).

TELEVISION STATION OPERATOR'S CERTIFICATE OF PROFICIENCY

The Australian Broadcasting Control Board has notified the following candidates that they were successful at the examination held in Sydney and Melbourne on 13th March, 1956, for the T.S.O.C.P.: R. W. Foster, F. J. Cross, C. G. Harvey, B. D. Pronger, N. E. Martin, J. M. McConnell, S. G. McLean, M. V. Everett, L. M. Renshaw, D. G. Wickham.

In future, examinations are to be conducted twice yearly, on the second Tuesday of June and December instead of each quarter. Applicants who have passed any section of the examination on a previous occasion will be exempted from those sections for a period of 12 months, that is two half-yearly examinations succeeding the passing of the section.

The next examination will be held in Sydney and Melbourne on 12th June, 1956. Applications for the June examination must be lodged with the Secretary of the Board, 497 Collins St., Melbourne, by 15th May, 1956.

FEDERAL QSL BUREAU

RAY JONES, VKRJI, MANAGER

Owing to the late arrival of these notes, they could not appear in their normal position, and some items have been deleted—Ed 1 Tom Holbert, ex-VS8CQ, advises that he is still patiently waiting receipt of several ex-uses for cards for contacts made while at Hong Kong Tom, who is now G3DXJ, is located at 81b Valon Road, Arborfield, Berke, England.

Was fortunate to meet the bulk of the recently returned Maswon Amateur team in congenial and convivial surroundings recently. Present were Eric IEM, Fritz IVH, Hugh IAWI and Jack J1V, the only absentee being IRA. Passed over to them the big stack of accumulated cards, no doubt will receive their attention when more pressing matters are disposed of. Jack Ward, J1W, got out of it lightly as he received only one card, which was from VK3WIA, the Scout Jambovie station. This was Jack's only contact! All the boys looked in first class condition, thanks to the fatherly eye kept on them by Alde, who is well beyond his years.

Information is to hand via HERS125 that Pat Lutz, one of the operators of CR18A in DILL, Timor, is still keen to make a comeback on the air but finds it tough going to get the necessary gear for a proper set-up. Pat is currently incited DILL station and would welcome a word with any Amateur passing that way. Pat cherishes the ambition to migrate to VK once day. During the war Pat performed many invaluable deeds for the cause of the Allies. He eventually escaped from Timor during the Jap occupation, but returned there at the request of the Allies to help their plans. To this end he was landed behind the enemy lines from one of our submarines.

See Halsey VS8DE, Box 241, Hong Kong, who QSLs 100 per cent, asks that the many VK stations contacted, speed up their cards to him as he is finding it hard to come by VK cards so far.



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SHORT WAVE LISTENERS' SECTION*

VICTORIAN GROUP

The last meeting of the Group was conducted on 27th March at the rooms, 191 Queen St., Melbourne. Max Hilliard, from VKS, was present and passed on greetings from the boys in the States. The meeting was very interesting and well welcomed. Fred JVS also put in an appearance. The main feature of the meeting was a talk by Max 323 on the organisation of the Wireless Institute. Arrangements were made at the meeting for a visit to the Institute in Melbourne. Four members of the Group were at the QTH on the evening of 6th April, despite the pouring rain. It was a very interesting evening. Our thanks go to Max 323 and Dick for giving us such a very fine evening.

Coming Events: A visit to the Police Radio Station 124 has been arranged. This visit is timed to begin at 4 p.m. on Sunday, 25th April. All members are requested to meet outside the Police H.Q., Russell St., City, by no later than 3.45 p.m. As the Police Force is a very busy organisation, it would not be well to keep them waiting. Any Amateurs who would like to join our Group for this visit are cordially invited to do so. In fact you can participate in any other of our activities if you ever wish to do so.

You are reminded to keep the following programme in mind: May 23—Free Night, June 23—Talk on Construction and Operation of V.h.f. Gear by Fred 3YS, July 31—Talk on his recent overseas tour by Geoff JDF, August 28—Annual meeting, election of office-bearers, September 25—Talk by Len 3LN, October 30—Talk by Ron 3ARV. A visit to the City West Telephone Exchange is being arranged, so watch for this.

CALLING ALL AMATEURS

If any of you would be willing to receive a visit from a small number of S.W.I. Group members, say about five, please let us know. Also, if we may be able to help you by monitoring your transmissions at any time, listening while you are going mobile or even lending a hand in the erection of an antenna, don't be afraid to contact us. You'll be helping us in

* Compiled by: Ian J. Hunt, WIA-L3007, 101 Robert Street, Northcote, Vic.

this way as we must gain experience by such activities. Write to Ian Hunt, 101 Robert St., Northcote, or ring MY 260 Ext. 525 during the day. Any enquiries are welcome.

All a.w.'s are requested to forward reports of stations heard together with details of the equipment being used. We've been promised some information from the VK5 boys, so how about H? Come on all you country chaps and also VK2, VK4, VK8 and VK7. Are there any S.w.'s in VK9? We'd be very pleased to hear from you.

HEARD AMONGST THE HETERODYNES

3.5 Mc.—W1A-L3007: VK3APL, VK3AHH, VK3PR, VK3QZ, VK3LR, ZL4IE, VK3AXH, VK3CS, VK3HF.

7 Mc.—WIA 13807 VKJO (fixed portable station), VK3AMM/M. WIA-13815: W3ECR, W6AM, ~~W6AM~~

14 MG-YA-13007 E2W. EABBB HPICC.
GM3DDH GILG. CEEPP ZKIBS EA3CO. DU-
JCY. VS8DO. VUZER. KMAAF. VKRBS. YJ1RF.
VR2CY. VK1IJ. PU5AC. EAAAI. MIB K9DB.
VS8DB. P8EG. Z54CY. VS8PU. KC4USA. LU-
1FR. VE3ARS. Z54JK. G3FKR. V38ED. CO2BL.
V77K. V64DS. K17BYK. ZMAAT. FXCZC.
EATD. Z58BW. DL4MW. P7EA. LU7DX. 28-
SAK. DU1JK. XE1A. XE2KW. XE1CW. FMTWQ.

[illegible]

HKEFV, YVSEC, KRNSA, KGNAA, KGBAFX,
XL7AIV, VEIEI, TIRMA, VKIJ, VPZDL, HK-
SER, LUYDX, ZKIBS, ZKIBL, HCEBH, HPJEU,
HP3FL, VPIJH, ZS5AJ8, OEFJK, OAAAI, KM-
6IX, VEIAE, KWEVG, 4X4MD, COIMG, KASCI,

21 Mc. -W1A-1A097 KH8ZA, W8AM, KH8-
WAG, VS2DR, FJEC, ZS8CY, KV8ZB, W2SKK
KA2GX, HC1FS, W7FQS, W8AL, ZJ4JK, G3-
FXB, EAJDJ, ZS8BW, FTEA, XE1A, KP4ADX,
KC4UB/KL7, W7TWM, KLJALZ, VP8RR, VP-
6FL, W4G-1, RV1US, VP8BL, I1FKG, DL-
C1A, O1A-1, G3KX, W8W, W8W, W8W,
DL4XA, DL4NE, KH8BS, OH8BL, I1AY,
I1ER, G3QCE, K5MEA, VK8DB, KR6FO, OH1RU,
SM8MR, KC6ZB, Q8SY, VY8VL, KATHH, KR-
8MY, F7YAY, OH8NM, OH8OV, ZS8ND, OA-
4AL, J4GHB, YU8RC.

28 Me.—WIA-L8015: HK5ER, KH9AXH, KP-4GN, VE4RO, VE7AJU, VK8DB, W1-W0.

144 Mc.—W1A-L3008 VKERS, VK3SE, VK-
SZCG, VK3ZDB, VK3ZBU, VK3ZDG, VK3AWS,
VK3AWU, VK3ZAN, VK3FO, VK3ADU, VK3QO.

428 Mc.—WIA-L3002. VK3JQ, VK3AAF, VK-
3AUX, VK3ZAI/3 Pretty Sally Hill (34m.), VK-
3ZAN, VK3ZBD. WWIA-L3001. VK3AAP, VK-

BEAN, VIKSBD WYIA-L3001 VK3AAT, VK-
SQO, VK3AUX, VK3GQ, VK3ZAI, VK3ZCJ,
VK3ZAN, VK3GM (Mt. Bunninyong), VK3ZAQ.

Well, after having read this most comprehensive list you'll agree that the bands are well and truly picking up. So go to it and see what you can hear. Next month we'll tell you something of the gear these listeners are using, so till then, cheerio and good listening.

50 Mc. W.A.S.

Cell	Cer. Add. No. Cntr.	Cell	Cer. Add. No. Cntr.
VK2WJ	13 4	VK3AEZ	10 1
VK3PO	5 3	VK3XA	11 1
VK3VW	8 3	VK3GM	19 1
VK4RY	3 3	VK3ACL	14 1
VK4HR	4 3	VK3ZD	16 1
VK6LC	1 1	VK3HO	17 1
VK6DW	3 1	VK3ABC	8
VK3RR	8 1	VK3WH	18
VK3HT	7 1		

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Collector dissipation	max. 25 mW
Junction temperature	max. 60° C.

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See "Audio Engineering" of
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20 WATTS: 20-30,000 c.p.s.

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SCREEN TAPS 19% of Plate Z.

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Leakage Inductance:

1/2 P/15 P. 15 mH. maximum.
Prim/Sec: 20 mH. maximum.

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For VALVES:

81A, EL81,
KT60, etc.

See "Radio and Hobbies" of

February, 1936, 17 watts
U.L. Amplifier.

20 WATTS: 20-30,000 c.p.s.

Primary: 4,500 ohms.

SCREEN TAPS: 19% of Plate Z.

F.R.: Plus or minus 1 db 10-50,000
c.p.s.

Leakage Inductance:

1/2 P/15 P. 15 mH. Maximum.
Prim/Sec: 15 mH. maximum.

★ Ultra Linear Output Type—

Type 916—12 watts.

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19% Screen Taps.

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Type 2565—15

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80 METRE TRANSMITTER HUNT

A good crowd turned up to the March hunt when the tx was hidden by Len SLV at Lysterfield in a bush and setting up in the hills in the Ferntree Gully area. This location was a little further out than usual and provided a very nice afternoon's run into the hills for those who weren't merely bent on finding the tx. Len SLV hid the tx in his car, which he had driven off the main road well into the bush. In these rustic surroundings the gang had a very enjoyable get-together as usual and finished up with a picnic tea. The winner was Roy SARV and his right-hand man, Ray Price, and were closely followed by Bob SOJ.

SOUTH WESTERN ZONE CONVENTION WARRAMBOOL

The zone activities have been colossal the last few weeks owing to the Convention held in Warrambool on 17th and 18th March. John SARV set up his rig at Bill Wines' QTH on Saturday morning for use of the mobiles en route. Ted SPS and Bill Wines were at the m.c. Kevin SAKR was the first mobile worked. Next came JAGD and company. There was a steady arrival of Amateurs from then on and all enjoyed afternoon tea, provided by Bill's XVI. SJI's daughter and Mrs. Adams (SARV's mother).

and company won the first hunt. The next hunt followed within a few minutes and was won by Bill SAKR.

The scramble was conducted in one of the local parks and as time was getting on, each competitor was allowed three CQs. The winner was Don SPO from the garden city of Ballarat, followed by John SAGD. All then returned to Bill's QTH where afternoon tea was served. Thanks were bestowed on the girls by SAKR, SAGD and SJA. SARV donated two sets of prizes, which were won by SAKR on the first hunt and SAKR on the second.

This concluded a very good Convention and I would like to thank you all for making it what it was and we hope to see you all in November when the Convention will be held in Ballarat. All zone members congratulate SIAZ and XYL on the arrival of a daughter.

CENTRAL WESTERN ZONE

During the month we were pleased to see a good photo of Rex SUR, of Bendigo, in one of the daily papers, nice work Rex, I guess you have been enjoying improved conditions on the DX bands during past few months, and have you got that long wire antenna in operation yet? Conditions on the 3 mhz band seem to be good also at Garry, junior op. of Herb INN, has been hearing signals from Melbourne, Warr-

ambool, Ballarat and Adelaide. Allen SJI has been on holidays and has acquired a lot of a.c. gear. Chas. SIB has been working his cobber, IGA on Mawson and many other DX stations. The zone rig is working very well, but he is now thinking of using a pair of 6146s in place of the 813. Have not heard much of Keith SAKP recently, but I believe he is building a new rig, using a pair of 807s, driven by a Gelot, Jim SJP is on the air fairly regularly, but work on his grazing property keeps him pretty busy. Merv SAKO has not been very active of late; he also has another hobby, that of coloured photography, no presume that has been taking most of his spare time.

Len SAAV went to S.A. for his holidays and worked mobile-portable while there. His signal was heard on the 80 mhz hook-up at 5/5. David SDV and YL have been touring (day trip) in Gippsland and working mobile, also joining in the hook-ups. Ron SFR and family favoured Jack SAKJ with a visit during the Easter holidays. Ron still says no 2 mhz for him, still we will see. Stations constantly on 2 mhz are Stan SIAZ Ron SIZ, Rex SIV, Jim SJI, Bill SJA, George SIZG and Jack SAKJ went up on a hill at Moe South to take part in the v.h.f. field day in March. Many contacts were had, and signals were loud and clear.

Peter, 2nd op. at SAKJ, has set for his ticket and is awaiting results. Good luck, Peter. Short wave listeners at Moe, Des and Terry, have built 2 mhz beams and are now building converters. Len SIV was heard on the hook-up after a long period of silence. Bill SWE still coming on too. George SIZG went mobile on 144 and 288 Mc. Peter SAKJ again with good success, stations being working in Melbourne, Geelong, and Colac.



VKS SOUTH WESTERN ZONE DINNER. Back Row (left to right) Ian SBV, Brian SADV, Frank Alexander, Geoff Clarke, Norm SEQ, Geoff Munday, Bill Neil, Les SDX, Middle Row, Ted SPS, Eric SAGD, John SAGD, Bob SIC, John SAAV, Jim SAAV, Neil SHG, Ken Croxford, Bill Bell, Leigh SH, Gordon SAGV, Seated, Bill SAKR, Ed SAKR, Cec SIV, Kevin SAKR, Bill Wines, Harry SJI, Jack SJA, Harry SJI (in front).

Block by courtesy of "Warrambool Standard."

Jim SAKT and XYL arrived about 6 p.m., SAEH, XYL and family arrived along with old faithful, Bob SIC, working mobile on motor bike. Pleased to welcome Ted SPS after a long absence from Amateur Radio, and regret to say he has been very ill and all wish him a speedy recovery. Matt SKEI, who was once a member of our zone, wished us a very successful Convention in a QSO during the afternoon—a very nice gesture indeed. An excellent photo was taken of the group at the dinner and these may be obtained by contacting Bill Wines.

The annual meeting took place at 8 p.m., after which Leigh SJI treated us to a good film show. At the conclusion of the films we adjourned to a local coffee lounge for supper.

Sunday morning all assembled at 8.45 and turned up traps for the first tx hunt. No one seemed able to pick up proper directions, although at one stage SAKR, SAGD and SPO were within feet, but time beat them. After this we returned to Bill Wines' QTH for the broadcast. Later the visitors moved to Harry's (SJI) shack for inspection of equipment, beams, etc. After lunch we returned to meeting place and prepared for more tx hunts. Kevin SAKR

nambool, Ballarat and Adelaide. Allen SJI has been on holidays and has acquired a lot of a.c. gear. Chas. SIB has been working his cobber, IGA on Mawson and many other DX stations. The zone rig is working very well, but he is now thinking of using a pair of 6146s in place of the 813. Have not heard much of Keith SAKP recently, but I believe he is building a new rig, using a pair of 807s, driven by a Gelot, Jim SJP is on the air fairly regularly, but work on his grazing property keeps him pretty busy. Merv SAKO has not been very active of late; he also has another hobby, that of coloured photography, no presume that has been taking most of his spare time.

LAKEVIEW ZONE

Many stations are policeable by their absence on the 80 mhz hook-up, so chaps what about pulling your weight with the rest as there is a big programme ahead of us this year. The Latrobe Valley Radio and T.V. Society and the East Gippsland Radio Club held a combined meeting at Graham's SQA at Traralgon. Although attendance was a little disappointing, a good night was had by all. Main business under

NORTH EASTERN ZONE

Col SIVQ is understood to be still in difficulty with housing, hence no ventures into radio yet. Syd SGI is doing well on 10 and 15 mhz, with a cubic quad on the former. Johnny SACK is one of several with only limited time for Radio. Former Zone Vice-President, Rex SJK, now City Engineer in Bendigo, is often quoted in the metropolitan dailies, once lately on his Amateur activities. Vern SAKX is to experiment with aerial systems. Len SALK has his SC344 back on standard line-up. Alan SJI, Keith SJC and Stan SAGT are all thought to have participated in recent QSL card distributions. Tom SPS and George SIZ are also pleased to have participated. Peter SAKJ specialises on the 5 mhz work. Howard SIV and Jim SJK are both on tx construction. Bruce SQA has not been in the Radio field lately. Brian SAKW is also off the Radio, being busy studying. Ron SAGG is getting help to build an all-band tx. Doc SIVP is away on holiday.

Henry SJP is on the closing stages of the year's v.h.f. radio work, but there is nothing about either Bill SIAWQ or Jack SAKK at the

moment. Doug 11J celebrated his recent birthday on Macquarie Island by making a hike, in company with a physicist friend, of total length 45 miles, in one day. Bruce 3AGG and Brian 3ASF were very quiet on the QTU on the last time of writing. Ray 3PI had not completed his shack, neither had Murray 3HZ moved into his new home. Alex 3AT is understood to be working on a 300 Mc. transmitter. Bob 3ZBG hopes to complete his Morse for full Amateur status later this year. Associate Jack Dunne is attempting to sit for his A.O.C.F. later in the year.

Keith 3DW has to trace a particular fault in his RX. Bill 2JP is thought to be building a new rig. Ken 3KR and Hugh 3AJT are working on a 300 Mc. transmitter. Bob 3ZBG while Vic 3ABX and Jack 3PF have not been heard lately. Ted 3CO in Seymour is making progress very quickly. It is not known how Frank 3ZU is going with his projected lease, neither is it known if Kevin 3IR is doing much in Amateur Radio. The twins are proceeding quietly at night. By the time these notes appear in print the next North Eastern Zone Convention should have proceeded beyond the stage of discussion, and SWI will have the latest information.

GEORGE LANGRISH RADIO CLUB

The boys have recovered from their trip to the Convention at Warrimoo and related they had a good time. The officers of the zone will be published in the S.W. Zone notes soon. Vic 3ABX has been asked to make a report on the QTU on the old subject of "100 Kc oscillators and multivibrators and their application." An interesting question time followed. Later that night the SWLs registered their spirits with a tasty repast. John 3AJT has donated a large quantity of excellent material for disposal to club members and the technical committee decided that great many components will be embodied in the club's new tx.

At last 144 Mc. is taking its toll. 3AER and 3AWZ, with 3ZAV, are delving into the mysteries of the 144 Mc. band and are still chasing signals on any evening after 9 p.m. New beams, converters, and crystal tx's are the order of the day.

The recent announcement of the all-band call to Jim 3ABT was received with great delight. We hope to hear Jim soon on all bands, but not straggling. Fred 3AD is still working his share of DX on 80 mhz; using the WJXK and the 72FD. Recently heard 3AKE on 2 mhz, putting out his usual five signal 2 mhz signal.

When you see the mobile 2 mhz gang coming to Geelong and showing we beginners how all the junk works? I guess you would really stir up activity in this place. Bill 3WT and 3AGV are still against the idea that he will be well soon. Gordon 3AGV is getting into Geelong on 2 mhz from Colar; also heard Mart 3AKV and Gordon 3AGK working Geelong chaps on 2 mhz.

QUEENSLAND

PRESIDENT'S REPORT, 1955-56

[Owing to a limitation of space, it is regretted that parts of this report have been deleted.]

The past year has been rather a difficult one for Council and the members of the Division in general, and we have seen quite a number of changes in our administration. Our elected President, Mr. Keith Crice, 4DG, having to retire from this position owing to a transfer to permanent position was taken over by me, truly, and until one takes office, he doesn't realise just what it entails to keep the workings of the Division running smoothly. Secondly, our Secretary, Bill Young, 4G, after a severe but a serious illness, leaving the Division in a spot because Bill really had the interests of the Division at heart and had his fingerprints on everything associated with the running of the Institute. The appreciation of all members, both in the country and city, was shown in a very appropriate manner in the form of a resolution taken over by Jim Rafter, 4PR, who is very quickly getting into the general swing of the Secretary's job.

It is certainly heartening to see better roll-ups at the general meeting each month, and I am sure that with the hand conditions getting better each month, more and more will attend our monthly meetings. The attendance at our Brisbane area. Our financial position over the past year has been rather sound, although we had to increase membership fees to cover rising cost of running the Institute. Full financial details will appear in "QTC". Our display at the Q'd Industries Fair gave the Division quite a boost from this venture.

The forthcoming year will see us in a new meeting place, State Service Union House, Elizabeth St. City I strongly urge all members to attend the monthly meetings.

Listeners' Group

This Group was formed with the express purpose of encouraging younger people to become interested in Amateur Radio and electronics in general. After a few months the group formed members seemed to drift away. It has been pointed out to the Division that unless we get someone from among our ranks with the necessary technical knowledge to run the Group, the scheme is doomed to fail. This situation will, I hope, be rectified in the forthcoming year when it is anticipated that a number of today that the new calls will spring from.

Queensland Industries Fair

This Division at the Industries Fair conducted a very interesting working display of an Amateur Radio Station. Many good contacts were made and considerable interest was shown by members of the general public. To all those members who assisted in the running of the station and the operation of the station, my sincere thanks and I hope this display will be put on again at future exhibitions.

QSL Inward and Outward Bureau.—Both inward and outward QSL Bureau indicate the amount of cards handled was greater than in the previous year, this possibly being due to better band conditions and activity on 21 Mc increasing. All cards were dispatched promptly. Many thanks to Jack 3ZB and Clare O'Brien's unsparring efforts in this regard.

V.H.F.—The past year has been a very successful one as far as 144 Mc. is concerned. The activity on this band has increased and the ability and the number of country centres operating has improved. The VK4 distance record for this band has lengthened several times since March last year. The VK4 distance record for this band has lengthened several times since March last year. The VK4 distance record for this band has lengthened several times since March last year.

Emergency Group

During March this year our Emergency Group Network came into operation and this time I am pleased to say with the complete blessing of the Radio Council. The Emergency Group was set up with Cairns and some towns north of Townsville and the net was asked to provide communication to those centres, but early in the piece North Q'd was without power. However, on Wednesday, 7th, communication to Cairns was set up and many telegrams were passed both ways. Credit must go to the Chairmen of the Emergency Group, Vince 4VJ, for the splendid way in which the whole situation was handled and thanks to Eddie 4EW and Clive 4CC for their unsparring efforts in passing traffic and to all those who participated in this event. Although a lot of criticism was levelled at the Group from various centres who feel that this was more due to the fact that most centres did not know the correct procedure to adopt. However, seeing this was VK4's first real participation in the emergency net, it was gained, and a set policy for all centres to observe will be forthcoming in a future Bulletin to be issued by the Emergency Group.

Contest Committee

Our Contest over the past year has met with good response from the members and some very fine scores have been achieved. VK4 Intra-State Contest was held in April and 4PQ won this event the receives an order for 3 Guinness from a trade house; 2nd, 4HZ (pick-up, redonated by 4VJ, 3rd, 4G. The 4QX Contest was first telegraphic closed, presented by Track-sen; 2nd, 4CC (Gelson) Mike Inset, from Brisbane; 3rd, 4G. The 4QX Contest was first telegraphic closed, presented by Track-sen; 2nd, 4CC (Gelson) Mike Inset, from Brisbane; 3rd, 4G. The 4QX Contest was first telegraphic closed, presented by Track-sen; 2nd, 4CC (Gelson) Mike Inset, from Brisbane; 3rd, 4G.

Country Report

Although most country centres have been very active with their own groups, both h.f. and v.h.f., no report has come to hand in time for

inclusion here. The country hook-ups have been fairly regular every week.

In conclusion I wish to thank the Council and all members who have assisted me so much in the past year. To the Council I say we are all sorry to see you leave and I wish the new Council every success in the forthcoming year. To all members of this Division I say support your Council and Division, attend your general meetings, give Council your problems so that they may help you. On the air be courteous, helpful, and help the other fellow, abide by the regulations and last, but not least, remember TV is not just around the corner.

(Signed) Frank R. Bond 4ZM, President

TOWNSVILLE

The cyclone that hit Townsville did unfold damage around this QTH. A large igloo alongside a fence and another behind my house lost many hundred shingles from roof to eave. I lost my 3 el. on 80 mhz, 9 el. on 15 mhz, and folded dipole on 40 mhz were all wrecked, but fortunately the lower still stands. Ted 4EJ lost his lower, together with his new 21. Special; hard luck Ted, all the boys will give you a hand when you are ready.

Power and telephone lines were down in many places and it was around 8 p.m. Wednesday night that John 4DK came on with news from Kalamunda. Both the Council and the Police and Postmaster at Ayr have been in contact with a station near Townsville (4RW) and it required could help pass traffic, but no one in the local area had any spare telegrams were awaiting despatch. I was then asked by 4AW in Brisbane to organise a net with Cairns and after a number of days (in Mareeba) contacted the local Police to get a message through to Police in Cairns to have one of the local Amateur Stations come on the air, but again no one was interested, much for Brisbane asking for a net station.

Later on Ted 4MH came on for traffic handling. Harry 4CK (Atherton) came in with a message from Kalamunda. On 7th, 8th and 9th on Thursday morning after approval had been given. Norm 4AT, who was in Gunnsdell last year in the floods and handed emergency traffic to me, the local Police and Postmaster and this time he was again called upon and his station was manned by himself and Bob, and the local Police and Postmaster. Over a hundred telegrams were passed as official channels were closed.

Thursday night 4BW opened up with traffic to and from Kalamunda. Ted 4EJ took by DX to re-transmit on 14 Mc. to Brisbane. Good work, Graham.

Frank 4FC at Ingham did yemen service for his township with traffic handling.

Our club is asking that all dope on "Emergency Net," as set up in Brisbane, should be distributed to all Amateurs in country areas.

Any boys in the north not mentioned handling traffic, many thanks as could not fit everyone.—4RW.

SOUTH AUSTRALIA

The rate the months rush by these days makes me quite sure that when Gabriel blows his trumpet and the angels sing "The Lord is with us" "A.R." For the time being they seem to be well back into my lap in spite of all my attempts to get them out of my mind. I have been a bit at this time, 10, it has also been a privilege to have his annual snack-back at the ex-venerable purveyor of meadow claff-ye, you remember. I would like to wish the 40th to enticements I could muster would change Doc's steady No. No! No!

Another general meeting brought forth a bumper crop of members and visitors. Whether it was the prospect of being seen by me or merely the not disappointing hopes of a first class entertainment from Doug and Norm was not known. The prospect was good, say. The usual welcome to visitors—Messrs. McKeller, Cent, Arbon, Yelland, Yattar (ex-president) was made by the President, Mr. John Harding. The meeting was presided by the members with great acclamation. Back into the fold for the evening was Don 5DK, brought in by Dave 5B. The two men asked on 80 mhz each evening John disposed of the business in double quick time and the QSL cards and smokes were taken together. The meeting was well attended and well ordered—and, by the way, some proceeded, we all would have been there yet! Thanks Doug and all efforts would be made to make it a success.

Last year, Warwick 5PS was domiciled for his holidays at Oakbank. Having taken the precaution of borrowing my Type 3 Mk II beforehand and finding the National Field Day coinciding with quite a few contacts he had

made, he submitted a log—and won the State award! This year the F.C.C. tricked him by reverting the date to Feb. 13 and now nobody's on speaking terms, although SWI did condescend to work him on Sunday morning.

Council invited Les SLC to fill the vacancy in the ranks and last Wednesday (4th) John SKX, who was in the chair, gave Les a warm welcome. These present immediately thought of all the jobs that could be unloaded onto Les and finally knowing a "little bit" about this game of DX and Contests, he accepted a nomination to the Federal Contest Committee. His name, together with Gordon SKU, Rex SQR, Reg SRN, and Rex SDO, will be forwarded to Federal Executive for acceptance by Federal Council.

The T.V.I. Executive Committee is forging ahead with its plans and will open the barrage at the May meeting. Ian SZAM, who is right in the thick of it, at a local industry, will open the lecture and he will be followed by Phil SZAD. Ray SBT will be the last to speak, but what he has to say will not be least. So whatever you do chaps, don't miss this series of lectures on what's wrong and how to fix it! Members will be and to hear that Len SYF is very ill in hospital as of writing and Council has written to Mrs. Sawford expressing sincere sympathy on your behalf. I hope that by the time this is printed that Len will have turned the corner and be well on the road to recovery. Lance SWF ("Inky" to you) is also having his share of ill-health and to you also we send our "get-well" signal OM. We are all very glad to see Alan SYO about on his feet again. See that you keep us happy, Alan!

Called on Clem SZL the other evening to find him amidst heaps of quartz, grinding and cutting for the lick of his life. He showed me his latest "acquisition"—a 2 inch slab, cut from a crystal at least 10 inches across which was almost flawless. The loveliest specimen that I have ever seen, which will no doubt be keeping some of the v.l.f.s. busy for a while before very long. Clem knows his stuff on this game and one day when he gets time off from making "trocks" he's going to make two tape recordings for the country chaps—aren't you, Clem! Siderpie that one OM. Clem is also one of the members of the Technical Advisory Committee.

ERYE'S PENINSULA

Way out at Ceduna, George SEC still xtal control on 7048 KC, working hard sitting out the Bush Church Aid Medical Service area with

transceivers. Doesn't find much time to "ham" these days, but puts a beautiful signal into Adelaide when he does. Further East the Lincoln boys are becoming active with Pat SLT burning up his "mike" with the hot DX that he is working—notice you're back into the fold again too, Pat, nice work; we like to have you all in the W.L.A. Jack SVJ has a new shack with a house around it, but we haven't heard too much of you over here yet; what about it? Wally SDF busy sweating how to turn SDO into ECU using a pair of 868s—seem to have that mixed somehow; never mind Wally, time will right all wrongs they say. Norm SYM forsaking Wedge Island for fairer sights in Lincoln. Just what happens to those wild goats Norm?

LOWER NORTH AREA

From the area of bigger and better tr's, rx and beams, come word that Ern SEN has nearly completed his 33 tube converter, xtal, of course! to work on all bands. Bob SHI been making changes in the bands not for me to comment on. Les SAX trying his hand on mobile outfits and almost took my offer of a Type 3 but still had a few grey hairs left to fear out, so turned it down VKIs will look for that lost signal Les—give them a ring on the phone; hepe you have a good trip anyhow.

TECHNICIAN WANTED

Relieving Technician, holder of 1st Class C.O.C.P., required by Church of England Flying Medical Services, for all or part of period from last week July to end October. Relieve Radio Officer in charge transceiver network for holidays. Good conditions, plenty fishing.

Further details: G. Cameron, Radio Officer, Flying Medical Service, Ceduna, S.A.

Comps SEF laid low by the thought of a lecture on 144 Mc. gear, but says when his two tubes are not gassy he'll come good. Hurry up and get well OM.

SOUTH EAST AREA

This land of promise visited by Joe SJQ, Charlie SON and Doc SMD over Easter weekend. Charlie and Joe portable; sounded like there was water in the mike Joe when I heard you! The meeting last month was graced by the usual roll up with the evening taken up with some 35 mm. colour slides and a session of monthly activities. The 2 mx gang still running their session every Monday evening and Erg SKU reports this period as the only time when Tom STW is heard.

Col SCJ and Claude SCH active occasionally on 40 mx. Stuart SMS interested in a new hobby called "Zephyr" which is reducing the QRM on the DX bands—a temporary respite we hope. John SFD still hasn't found out if his rig works—spends every week-end on the lakes water skiing. Thrills and spills a-plenty. Erg SKU looking for DX on 30 mx, but expects to get back in the air or well as on it when the new sail-plane arrives from Adelaide soon. (Thanks for the news Erg.)

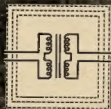
Occasionally one of our birds of paradise flies eastwards and the VK3 boys turn on the hospitality. Frank SMZ, having migrated back home from the "Big smoke" to our quiet village on the Torrens, is still radiating good cheer to all around him. Many Amateurs rallied round to make a wonderful time for Frank, who said, "There's no doubt about the Preston boys." Frank tells me that the VK3 gang rush the VK3 notes—hmm. I'd better go read up those libel laws again, just to be sure!

Just a sober note to class chaps. S.w.i.s. are keen prospective Amateurs, but just occasionally where there is a disability, like blindness, a.v. listening is life in a broader world and answers to reports on our signals with a QSL card mean more than a piece of paper embossed with a call sign.

WESTERN AUSTRALIA

Sorry about missing last month's notes, chaps. What with shifting QTH and one thing and another, things became a little sticky at times. Many VKs recently had the pleasure of meeting

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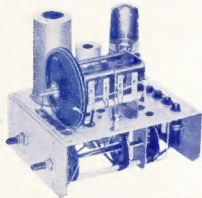
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Right: Cat. M410, 38/6

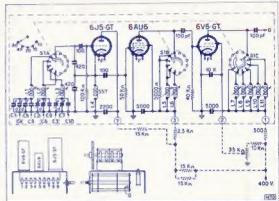


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